

**STATEMENT OF BASIS (AI No. 19901)**

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0001082 to discharge to waters of the State of Louisiana.

**THE APPLICANT IS:** Cabot Corporation  
Canal Plant  
Post Office Box 598  
Franklin, Louisiana 70538

**ISSUING OFFICE:** Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services  
Post Office Box 4313  
Baton Rouge, Louisiana 70821-4313

**PREPARED BY:** Michelle Bickham

**DATE PREPARED:** February 22, 2006

**1. PERMIT STATUS**

**A. Reason For Permit Action:**

Permit reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term.

- B.** NPDES permit - (LA0001082)  
NPDES permit effective date: June 26, 1977  
NPDES permit expiration date: June 25, 1982
- C.** LWDPDS permit - (WP1003)  
LWDPDS permit effective date: January 15, 1993  
LWDPDS permit expiration date: January 14, 1998
- D.** LPDES permit - (LA0001082)\*  
LPDES permit effective date: January 1, 2000  
LPDES permit expiration date: December 31, 2005  
\*This permit was modified on September 1, 2001
- E.** MSGP permit - (LAR05M510)\*\*  
MSGP permit effective date: June 19, 2001  
\*\*This permit will be cancelled upon issuance of the final permit.
- F.** Date Application Received: July 1, 2004

**2. FACILITY INFORMATION**

**A. FACILITY TYPE/ACTIVITY - carbon black manufacturing facility**

Cabot Corporation, Canal Plant is an existing carbon black manufacturing facility. The carbon black process includes introducing fuel, oxidants, water, and additives into a reaction zone with pyrolysis producing carbon black. Carbon black and by-products are introduced to the

separation process and gaseous by-products are removed. The recovered carbon black is conditioned with water and/or additives for density. The final processing consists of degasification where oxidants, water, and additives may be introduced to achieve the final products. The reactants are maintained at proper temperatures, pressures and flows. The process is controlled via temperature and fluid mechanic changes. The carbon black has limited exposure as it is stored in a warehouse awaiting shipment, and the loading areas are under roof.

**B. FEE RATE**

1. Fee Rating Facility Type: minor
2. Complexity Type: III
3. Wastewater Type: II
4. SIC code: 2895

**C. LOCATION** - 272 Cabot Lane, Centerville, St. Mary Parish  
Latitude 29°41'15", Longitude 91°28'15"

**3. OUTFALL INFORMATION**

Outfall 001

Discharge Type: stormwater, boiler blowdown, and reverse osmosis backwash combined with treated sanitary wastewater from Outfall 101 and stormwater, washdown water, non-contact cooling water, lab wastewater, and condensate from Outfalls 101, 301, and 401

Treatment: none

Location: at the point of discharge from the northwest side of the facility (Latitude 29°41'1", Longitude 91°28'24")

Flow: 1.46 mgd

Discharge Route: local drainage thence to Alligator Canal thence to the Intracoastal Waterway

Outfall 002

Discharge Type: desander backwash water

Treatment: none

Location: at the point of discharge from the desander located on the north end of the facility (Latitude 29°41'11", Longitude 91°28'23")

Flow: 0.0003 mgd

Discharge Route: Alligator Bayou Swamp thence to Yellow Bayou

Outfall 003

The facility is no longer discharging from this Outfall.

Outfall 101

Discharge Type: treated sanitary wastewater (occasionally excess potassium acetate additive is flushed through the system)  
Treatment: package sewage treatment plant (equalization, aeration, sedimentation, sludge recirculation, UV and aerobic sludge digestion)  
Location: at the point of discharge from the sewage treatment plant located on the west side of the facility (Latitude 29°40'58", Longitude 91°28'30")  
Flow: 0.03 mgd  
Discharge Route: through Outfall 001 thence to local drainage thence to Alligator Canal thence to the Intracoastal Waterway

Outfall 201

The facility is no longer discharging from this Outfall.

Outfall 301

Discharge Type: non-contact cooling water  
Treatment: none  
Location: at the point of discharge from the north central part of the facility (Latitude 29°41'5", Longitude 91°28'24")  
Flow: 0.209 mgd  
Discharge Route: through Outfall 001 thence to local drainage thence to Alligator Canal thence to the Intracoastal Waterway

Outfall 401

Discharge Type: stormwater, washdown water, non-contact cooling water, lab wastewater, and condensate  
Treatment: settling pond (aluminum sulfate applied as flocculant; condensate traps treated with limestone)  
Location: at the point of discharge from the settling pond located in the north central part of the facility (Latitude 29°41'4", Longitude 91°28'29")  
Flow: 0.093 mgd  
Discharge Route: through Outfall 001 thence to local drainage thence to Alligator Canal thence to the Intracoastal Waterway

#### 4. RECEIVING WATERS

STREAM - Outfalls 001, 101, 301, and 401 - Alligator Canal thence to  
the Intracoastal Waterway  
Outfall 002 - Alligator Bayou Swamp thence to Yellow Bayou

BASIN AND SEGMENT - Vermilion-Teche River Basin, Segment 060906

DESIGNATED USES - a. primary contact recreation  
b. secondary contact recreation  
c. propagation of fish and wildlife

#### 5. PROPOSED EFFLUENT LIMITS

BASIS - See Rationale below.

#### 6. COMPLIANCE HISTORY/COMMENTS

##### A. Compliance History

There have been no recent inspections at the facility.

##### B. DMR Review/Excursions

DMR's were reviewed for the last two available years. All DMR's were submitted in accordance with the existing permit. The excursions were as follows:

<u>Date</u>	<u>Parameter</u>	<u>Outfall</u>	<u>Reported Value</u>	<u>Permit Limits</u>
8/04	TOC	001	129 mg/L	50 mg/L
8/04	TSS	401	116 mg/L	75 mg/L
8/04	TOC	401	565 mg/L	50 mg/L
7/04	TSS	401	159 mg/L	75 mg/L

## 7. EXISTING EFFLUENT LIMITS

Outfall 001 - stormwater and previously monitored sanitary wastewater, once-through non-contact cooling water, cooling tower blowdown, process wastewater, washdown water and lab wastewater

Parameter	LPDES	
	Monthly Average	Daily Max
Flow - mgd	Report 1/week Measure	Report 1/week Measure
TSS	---	Report 1/week Grab
Oil & Grease	---	15 mg/L 1/week Grab
TOC	---	50 mg/L 1/week Grab
pH	6 - 9 s.u. 1/week - Grab	

Outfall 101 - treated sanitary wastewater

Parameter	LPDES	
	Monthly Average	Weekly Average
Flow - mgd	Report 1/mo Est.	Report 1/mo Est.
BOD	20 mg/L 1/mo Grab	30 mg/L 1/mo Grab
TSS	20 mg/L 1/mo Grab	30 mg/L 1/mo Grab
Fecal Coliform col/100 ml	200 col 1/mo Grab	400 col 1/mo Grab

Outfall 201 - combustion air blower once-through non-contact cooling water

Parameter	LPDES	
	Monthly Average	Daily Max
Flow - mgd	Report 1/mo Est.	Report 1/mo Est.
TOC	---	5 mg/L 1/mo Grab

Outfall 301 - cooling tower blowdown

Parameter	LPDES	
	Monthly Average	Daily Max
Flow - mgd	Report 1/3 mos Est.	Report 1/3 mos Est.
Water Treatment Additives	---	--- 1/3 mos Record

Outfall 401 - stormwater, treated process wastewater, washdown water and lab wastewater

Parameter	LPDES	
	Monthly Average	Daily Max
Flow - mgd	Report 1/week Est.	Report 1/week Est.
TSS	---	75 mg/L 1/week Grab
Oil and Grease	---	15 mg/L 1/week Grab
TOC	---	50 mg/L 1/week Grab

Outfall 002 - desander backwash water

Parameter	LPDES	
	Monthly Average	Daily Max
Flow - gpd	---	Report 1/3 mos Est.
TDS	Report 1/3 mos Grab	Report 1/3 mos Grab
TDS background	Report 1/3 mos Grab	Report 1/mo Grab

Outfall 003 - boiler blowdown

Parameter	LPDES	
	Monthly Average	Daily Max
Flow - gpd	Report 1/3 mos Est.	Report 1/3 mos Est.
TDS	---	Report 1/3 mos Grab
pH	6 - 9 s.u. 1/3 mos - Grab	

## 8. ENDANGERED SPECIES

The receiving waterbody, Subsegment 060906 of the Vermilion-Teche River Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated October 21, 2005, from Watson (FWS) to Gautreaux (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

## **9. HISTORIC SITES**

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

## **10. TENTATIVE DETERMINATION**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

## **11. PUBLIC NOTICES**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

## **12. STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT**

As per LAC33:IX.2341.B.14.k., stormwater discharges from facilities classified as SIC Code 2895 are considered to be associated with industrial activities. Therefore, in accordance with LAC 33:IX.2707.I.3 and LAC 33:IX.2361.I.4 [40 CFR 122.44(I)(3) and (4)], a condition is proposed for applicability to all storm water discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. This condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit, along with other requirements. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2341.B.14 [40 CFR 122.26(b)(14)].



**Rationale for Cabot Corporation**

1. **Outfall 001** -stormwater, boiler blowdown, and reverse osmosis backwash combined with treated sanitary wastewater from Outfall 101 and stormwater, washdown water, once-through non-contact cooling water, lab wastewater, and condensate from Outfall 101, 301, and 401 (estimated flow is 1.46 MGD)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (mg/l)	<u>Reference</u>
Flow	---:Report	
TSS	---:Report	previous permit (BPJ)*
Oil & Grease	---:15 mg/L	previous permit (BPJ)*
TOC	---:50	previous permit (BPJ)*
pH	6.0 -9.0 s.u.	previous permit (BPJ)*

**Treatment:** none (on the final outfall); treatment is used on various internal outfalls

**Monitoring Frequency:** once/2 weeks for all parameters at the point of discharge from the northwest side of the facility; the monitoring frequency is being reduced from 1/week to once/2 weeks based on the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies (April 1996)

**Limits Justification:** Limitations based on the previous permit and BPJ.

2. **Outfall 002** - desander backwash water (estimated flow is 0.0003 MGD)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (mg/l)	<u>Reference</u>
Flow	---:Report	
TSS	---:Report	similar discharges

**Treatment:** none

**Monitoring Frequency:** 1/3 month for all parameters at the point of discharge from the desander located on the north end of the facility

**Limits Justification:** Limitations based on BPJ and similar discharges. The report requirement for TDS (including background TDS) has been taken out of the limitation requirements for this outfall and replaced with a report requirement TSS. TSS measures the amount of solid materials suspended in the wastewater and should provide a better representation of the composition of the discharge.

3. **Outfall 101** - treated sanitary wastewater (estimated flow is 0.03 MGD)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Weekly Avg (mg/l)	<u>Reference</u>
Flow	Report:Report	
BOD <sub>5</sub>	20:30	LPDES General Permit LAG560000 (BPJ)
TSS	20:30 mg/L	LPDES General Permit LAG560000 (BPJ)
Fecal Coliform	200:400/100mL	LPDES General Permit LAG560000 (BPJ)

**Treatment:** package sewage treatment plant (equalization, aeration, sedimentation, sludge recirculation, UV and aerobic sludge digestion)

**Monitoring Frequency:** 1/month for all parameters at the point of discharge from the sewage treatment plant located on the west side of the facility

**Limits Justification:** LPDES General Permit LAG560000, Class III General Sanitary Discharge Permit, Schedule A.

4. **Outfall 301** - non-contact cooling water (estimated flow is 0.209 MGD)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (mg/l)	<u>Reference</u>
Flow	---:Report	
TOC	---:5 (net)	LPDES General Permit LAG480000 (BPJ)

**Treatment:** none

**Monitoring Frequency:** 1/month for all parameters at the point of discharge from the north central part of the facility

**Limits Justification:** LPDES General Permit, LAG480000, Light Commercial Facilities General Permit, Schedule E. Temperature is not included as this outfall is internal and will commingle with other wastestreams included in Outfall 001 prior to discharging into the named waterbody.

5. **Outfall 401** - stormwater, washdown water, non-contact cooling water, lab wastewater, and condensate (estimated flow is 0.093 MGD)

<u>Pollutant</u>	<u>Limitation</u> Mo. Avg:Daily Max (mg/l)	<u>Reference</u>
Flow	---:Report	
TOC	---:50	previous permit (BPJ)*
Oil & Grease	---:15	previous permit (BPJ)*
TSS	---:75	previous permit (BPJ)*

**Treatment:** settling pond (aluminum sulfate applied as flocculant; condensate traps treated with limestone)

**Monitoring Frequency:** 1/week for TOC and once/2 weeks for all other parameters at the point of discharge from the settling pond located in the north central part of the facility; the monitoring frequency is being reduced from 1/week to once/2 weeks for TSS and oil & grease based on the Interim Guidance for Performance-Based Reduction of NPDES Permit Monitoring Frequencies (April 1996)

**Limits Justification:** Limitations based on previous permit and BPJ.

\* Existing permits for similar outfalls  
BPJ Best Professional Judgement  
su Standard Units

**NOTE**

For outfalls containing concentration limits, the usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.

**303(d)/TMDL WATERBODIES**

Subsegment 060906 is not listed on LDEQ's Final 2004 303(d) list as impaired. However, subsegment 060906 was previously listed as impaired for suspended solids/turbidity/siltation and carbofuran for which the below TMDL's have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving waterbodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for subsegment 060906:

Bayou Teche TSS, turbidity & siltation

This TMDL states that point sources do not represent a significant source of TSS as defined in this TMDL. It further states that this TMDL only addresses the landfarm contribution of TSS/sediment and does not address the insignificant point source contributions. However to protect against the further impairment of this waterbody, a TSS limit has been placed on Outfalls 101 and 401.

Mermentau & Vermilion-Teche Carbofuran

This TMDL states that there is only one point source of carbofuran in the Vermilion-Teche Basin. Additionally, this facility is not expected to discharge carbofuran